

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
Telecommunications Relay Services and)
Speech-to-Speech Services for) **CC Docket No. 98-67**
Individuals with Hearing and Speech)
Disabilities)

**COMMENTS
WORLD COM, INC.**

WorldCom Inc. (“WorldCom”) hereby responds to questions raised by the Commission in its June 29, 2001 Notice seeking comment on WorldCom’s petition for clarification that its internet protocol (“IP”) relay service is eligible for reimbursement on an interstate basis.¹ WorldCom has addressed a number of the questions in its Petition and in two subsequent letters.² WorldCom incorporates these letters in its Comments, and makes them available as attachments.

The Commission Has Authority To Reimburse All IP-Relay Calls From The Interstate TRS Fund

It is appropriate, and permissible, for the Commission to reimburse all IP-Relay calls from the Interstate TRS Fund. One of the reasons WorldCom requests reimbursement for IP-Relay from the Interstate TRS Fund, is because a relay call initiated via the internet does not transmit billing automatic number identification (ANI) information, which would permit the

¹ WorldCom Petition for Clarification, Telecommunications Services for Individuals with Hearing and Speech Disabilities (“IP-Relay Notice”), CC Docket No. 90-571, December 22, 2000.

² WorldCom Ex Parte, CC Docket No. 90-571, March 30, 2001; WorldCom Ex Parte, CC Docket No. 90-571, June 6, 2001.

relay provider to identify the originating geographic location of the call.³ Under circumstances such as these, where the Commission is unable to reasonably determine the proportion of intrastate to interstate calls, the Commission is authorized to permit the TRS provider to be reimbursed out of the Interstate TRS Fund.

This authority is derived from Section 225(d)(3)(B) of the Communications Act, which authorizes the Commission to reimburse intrastate calls from the Interstate TRS Fund where a state does not have a certified state TRS program. In these circumstances, the state is unable to compensate for relay calls. In the case of IP-Relay, states are similarly unable to compensate for relay calls. First, they are unable to determine whether a call is intrastate or interstate. Second, even if it was possible to determine that an IP-Relay call originated and terminated in a single state, state relay administrators only reimburse relay providers to whom they have awarded contracts. IP-Relay creates the possibility that multiple relay providers will carry traffic that originates and terminates in a single state, even though none of them have been awarded the contract to provide relay service in that state.

Reimbursing IP-Relay Calls Solely From The Interstate TRS Fund Is The Most Efficient, Long Term, Method Of Reimbursing IP-Relay Calls

In its IP-Relay Notice, the Commission asks about the feasibility and desirability of different methods of determining or estimating the geographic location of an IP-Relay call in order to apportion responsibility for IP-Relay among individual states, and between the state and federal jurisdictions.⁴ At the moment there is no method of automatically determining the

³ The Commission need not rely on the inability of relay providers to determine the geographic origin of an IP-Relay call in order to determine that IP-Relay is solely interstate. As WorldCom's Petition, and attached letters argue, IP-Relay provides enhancements to traditional relay that make it an enhanced service, which the Commission currently considers to be largely interstate.

⁴ IP-Relay Notice at 3.

originating location of an IP-Relay call. It would be possible for a communications assistant (CA) to ask an IP-Relay caller their geographic location, but this method has a number of drawbacks. First, it would delay call set up time for every IP-Relay call, and would be viewed as a degradation of service. Second, callers would have an incentive to represent calls as local. WorldCom does not currently charge for IP-Relay calls that would be considered interstate. If originating location were known through a CA's query, users might fear they would be charged for an interstate call. They would tend to protect themselves against possible charges, now or in the future, by representing all calls as local. Third, IP-Relay providers are not currently entitled to be reimbursed from states where they have not been chosen to be a state-certified relay provider. The Commission could modify its requirements for renewing state certification to require states to reimburse providers of IP-Relay that have not been chosen to provide intrastate relay in that state, but the inaccuracy of the data does not justify taking this step. In addition, IP-Relay providers would have to establish reimbursement relations with every state. The added expense and complication would be inefficient, and tend to discourage entry and expansion of IP-Relay providers.

Another option would be for the Commission to require relay providers to query IP-Relay callers about the geographic origins of their calls on a sample basis in order to build up estimates of shares of IP-Relay calls carried within each state by each provider of IP-Relay service. The problems identified above would also apply to this method of determining state responsibility. An additional problem with sampling is the need to frequently update the sample, especially in the first few years of IP-Relay. Demand for IP-Relay service, both in aggregate and among competing IP-Relay providers, is likely to be unstable for the next few years. Callers would find the periodic queries to be annoying and intrusive.

The Commission Should Encourage Enhancements To Relay Through Appropriate Funding Mechanisms

The Commission asks parties to comment on whether computer-to-TTY calls should be reimbursed, even if they do not require the intervention of a CA. Relay providers could set up a gateway where computer-TTY calls could be facilitated without any intervention by a CA. However, relay providers have little incentive to develop this capability, since they would not be reimbursed for their development costs. Since the CA would not intervene in these calls, costs are fixed costs, and should be reimbursed on a flat, per call, basis. Relay costs for these calls do not increase according to minutes of use. NECA could ask relay providers to report their computer-TTY development costs, estimate demand for these calls, and set reimbursement for this type of call according to average costs per call. These same considerations should apply to other protocol conversions, such as ASCII to IP and TTY-IP, and TTY-ASCII (all of which could be supported by IP-Relay). If the protocol conversion requires the need for a relay operator, interpreter, or STS operator, then service costs vary according to usage and type of operator required. Protocol conversion services requiring the intervention of an STS operator should be reimbursed at the approved NECA STS rate. Protocol conversion services that do not require a relay operator should be reimbursed per call based on an estimate of average costs per call.

The VRS Model Does Not Apply To IP-Relay Reimbursement

The Commission notes that it temporarily waived its jurisdictional cost recovery rule in order to promote VRS, and asks whether it should similarly temporarily waive this rule in order to promote IP-Relay, and reapply the rule once IP-Relay becomes established.⁵ As explained above, the Commission would not need to waive its jurisdictional cost recovery rule in order to determine that IP-Relay should be reimbursed from the Interstate TRS Fund. As explained, the

⁵ Id., at 3.

Commission is currently authorized by its jurisdictional cost recovery rule to reimburse TRS providers for intrastate calls when a state (for any reason) does not reimburse relay providers for those calls. Therefore, it is not necessary to waive this rule and then revert to state-based reimbursement in the future. In addition, IP-Relay will offer the possibility of many enhanced features above traditional text-based relay, that clearly makes it an enhanced, and therefore under the Commission's existing rules, largely interstate, service. Even if technological developments eventually link IP addresses with originating ANI, IP-Relay should continue to be jurisdictionally considered an interstate service.

IP-Relay Calls Should Be Reimbursed At The Same Rate As Text-Based Relay Calls

As explained in our June 6, 2001 letter, IP-Relay exhibits the same cost and demand characteristics as text-based relay.⁶ On the cost side, IP-relay and text-based relay utilize the same facilities once the call arrives at our relay center. There is a cost saving of originating access charges, but this is offset by the additional cost of establishing and maintaining the internet gateway to handle the internet portion of the relay call. On the demand side, IP-Relay calls last an average of 5.5 minutes and take an average of 2 minutes to set up, approximately the same as text-based relay.

With The Exception of Speed-Of-Answer and 911 Calls, Waivers From Minimum Standards Are Not Needed

As explained in our June 6, 2001, WorldCom's IP-Relay service will comply with most of the Commission's mandatory minimum standards. One exception would be speed-of answer. WorldCom has offered IP-Relay on a limited, trial basis, so we are currently unable to predict what demand will be once a fully approved service becomes available. Having to invest in

⁶ See Attachment 3.

excess CAs, server and circuit capacity, in order to meet the speed-of-answer requirement would retard the expansion of IP-Relay service. WorldCom believes that a one year waiver of speed of answer requirements would give relay providers enough experience with demand levels to be able to make investment decisions that would permit them to comply with the Commission's speed-of-answer requirements with efficient, rational, levels of investment. The need for this temporary waiver would not be affected if the user had broadband access, since answer times are measured from the time a call is delivered to the relay provider's call center.

The lack of ANI challenges IP-Relay providers to automatically transfer a 911 call to the nearest Public Service Answering Point (PSAP). WorldCom has developed a national data base that permits a CA to immediately transfer an emergency call to the nearest PSAP, once the CA learns the caller's City-State or NPA Nxx. Industry standards groups such as the IETF may eventually develop protocols that link IP addresses to NPA Nxx, that would permit a CA to automatically transfer an 911 call to the nearest PSAP without making asking the caller's NPA Nxx, but that development is not imminent. In the meantime, WorldCom's solution permits rapid transfer of a 911 call. The Commission should waive the ANI requirement until industry standards organizations succeed in linking originating ANI to IP addresses. Until then, the Commission should require something like WorldCom's database solution, along with public education about the emergency features of IP-Relay.

The Commission's carrier of choice requirement was established to make affordable long distance service for persons with speech and hearing disabilities available on a functionally equivalent basis to persons without hearing and speech disabilities. Due to the lack of originating ANI, WorldCom does not bill for these calls. So long as IP-Relay providers guarantee a bill (in this case zero) lower than any bill the caller might receive from their carrier

of choice, the Commission should determine that its carrier of choice requirement is being satisfied.

IP-Relay is capable of handling services such as HCO, VCO, STS, and VRS, provided the user's computer is equipped with a speakers, a microphone, a sound card, a video card, or a camera. With the exception of a camera, which would be necessary for VRS, most computer systems come equipped to handle HCO, VCO, and STS. The quality of these relay services in an IP context depends heavily on the quality of the above-mentioned computer equipment. As manufacturers make more sophisticated CPE available, the user's experience of these services provided over IP will improve. States with equipment purchase programs may choose to subsidize the purchase of improved CPE to hasten the improvement in the quality of service of IP-based HCO, VCO, STS, and VRS.

Ability To Accommodate Voice Initiation of an IP-Relay Call Is Possible, But Should Not Be Mandated

Voice initiation of an IP-Relay call is technically feasible. In order to provide this capability the relay provider would have to know the IP address of the called party. A possible way to achieve this capability would be for relay providers to develop software akin to messaging services, where users log onto servers and announce their IP addresses, their availability to receive IP-Relay calls, and their desire to receive a relay call routed to their computer. Other solutions might arise as well. Because there is no current method of providing this capability, the Commission should not require this capability as a condition of approving reimbursement for IP-Relay. In addition, because the capability will provide additional value to consumers and strengthen the competitiveness of those providers who can accommodate voice initiation of an IP-Relay call, the capability should develop without the need for a regulatory mandate. The Commission should keep abreast of the manner in which voice initiation of IP-

Relay develops, and could consider making it a requirement after the industry has gained some experience providing this capability.

IP-Relay Provides Highly Secure Transmission Of Conversations

The Commission is right to be concerned about the security of conversations carried over the internet. Conversations carried over the internet should be as secure as conversations carried over traditional analog circuits. WorldCom currently encrypts every packet of data transmitted by its IP-Relay CAs using 128 bit encryption, the most secure, generally available type of encryption. WorldCom provides this encryption independent of the encryption capabilities built into the caller's internet browser. Thus, callers will be guaranteed the most secure method of encryption, without having to upgrade their browsers, or take any steps on their own. Because originating ANI is unavailable, WorldCom does not currently link IP-Relay calls to customer profiles. If and when such a link becomes possible, consumer data will be stored in WorldCom's confidential data base and this information will not be part of the transmission part of the call.

Outreach For IP-Relay Should Be Integrated Into General TRS Outreach Requirements

The Commission asks whether outreach for IP-Relay should be different from other forms of TRS. It is useful to distinguish outreach from advertising. Outreach is an educational effort that does not identify specific relay providers or their services, but educates users about the availability and use of TRS. Because such efforts do not identify specific relay providers, they should be the primary responsibility of government-funded organizations such as state relay administrators, state utility commissions and the Commission, and reimbursed from government-controlled funds.⁷ WorldCom does not believe a special outreach effort is needed for IP-Relay.

⁷ See Comments of the Coin Sent Paid Industry Team, In the Matter of Telecommunications Relay Services and the Americans with Disabilities Act of 1990, CC Docket No. 90-571 May 7, 2001.

Because IP-Relay will introduce competition for every TRS call, IP-Relay providers will compete by improving service quality and adding enhancements to relay service. IP-Relay providers will win customers through carrier-specific advertising that educates consumers about the special features of IP-Relay service compared to text-based relay, as well as compared to competing providers of IP-Relay.

Conclusion

For the reasons discussed above, WorldCom urges the Commission to adopt its recommendations.

Respectfully Submitted

Larry Fenster

Larry Fenster
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202-736-6513

Statement of Verification

I have read the foregoing, and to the best of my knowledge, information, and belief, there is good ground to support it, and it is not interposed for delay. I verify under penalty of perjury that the foregoing is true and correct.

Executed on July 30, 2001

Larry Fenster

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202-736-6513

ATTACHMENT 1

March 30, 2001

Karen Peltz-Strauss
Deputy Bureau Chief
Consumer Information Bureau
Federal Communications Commission
445 12 St., SW
Washington, DC 20554

Dear Ms. Peltz-Strauss:

It was a pleasure presenting the capabilities of WorldCom Inc.'s ("WorldCom") new internet protocol relay service (IP-Relay) at our February 7, 2001 meeting with you, Staci Pies, Scott Marshall, Jerry Stanshine, Sean White, and Pam Slipakoff. In the meeting, staff requested further information and analysis to aid your consideration of WorldCom's petition requesting that the costs of this service to be reimbursed solely out of the Interstate Telecommunications Relay Service Fund.⁸

Specifically, staff requested further information on: 1) the impact a decision WorldCom's request might have on the more general question of the regulatory treatment of internet protocol (IP) services; 2) the impact IP-Relay would have on competitive choice for relay customers; and 3) the statutory authority the Commission has to approve WorldCom's IP-Relay service. This letter responds to your questions below.

⁸WorldCom, Inc., Petition for Clarification, ("Petition") Telecommunications Services for individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990, CC Docket No. 90-571, December 22, 2000.

IP-Relay's Eligibility For Reimbursement As An Interstate Telecommunications Relay Service (TRS) Does Not Join The Issue Of The Future Status of IP Services

A decision regarding the jurisdictional status of IP-Relay Service does not depend on whether the Commission ultimately considers services offered via IP to be basic services, enhanced services, information services, or telecommunications services.⁹ The Commission has already determined that any relay service is an enhanced service because the text-to-voice translation that occurs with the assistance of a telecommunications relay service (TRS) operator involves a change in the form of information.¹⁰ Per the Commission's decision, TRS is an enhanced service, whether part of the call is transported via packet or circuit switched protocols.¹¹ Furthermore, the Commission has already determined that any enhanced service is an information service;¹² and that information services are interstate services.¹³ WorldCom's IP-Relay service is a TRS service, designed for the explicit purpose of enabling communication between deaf and hard of hearing customers and the general public. Under the Commission's precedent, IP-Relay must be found to be an enhanced service. The Commission may therefore immediately declare that WorldCom's IP-Relay service is eligible for reimbursement solely from the Interstate TRS Fund.

It is worth noting that WorldCom does not seek a ruling that its internet relay service is enhanced based on the use of a particular protocol - IP. We seek the ruling based on the service's function as a relay service. Indeed, we would urge the Commission not to wade into the larger issue of the regulatory classification of IP in this context, and we believe that any decision the Commission makes in the instant case has no precedential value to the larger policy questions of how to define telecommunications services in the future

Another reason for the Commission to determine that WorldCom's IP-Relay service is eligible for reimbursement solely out of the Interstate TRS Fund is because the service's use of IP makes the originating caller's geographical location impossible to determine. IP-Relay calls have terminated in almost every state, which would indicate that calls are interstate in nature and not limited to one area. Under circumstances such as these, where the Commission has a high degree of certainty that calls are predominantly interstate but is unable to reasonably determine

⁹See, In the Matter of Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review -- Review of Computer III and ONA Safeguards and Requirements, Further Notice of Proposed Rulemaking, CC Docket No. 95-20; CC Docket No. 98-10, (rel. January 30, 1998), at ¶41.

¹⁰Telecommunications Relay Services and Speech-to-Speech services for Individuals with Hearing and Speech Disabilities, Report and Order and Further Notice of Proposed Rulemaking, ("Advanced TRS Services Order"), CC Docket 98-67, (rel. March 6, 2000), at ¶81.

¹¹47 C.F.R. § 64.702(a).

¹²In the Matter of Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, First Report and Order and Further Notice of Proposed Rulemaking CC Docket No. 96-149, (rel. December 24, 1996), ¶55.

¹³Id., ¶102.

the exact proportion, the Commission is authorized to permit the TRS provider to be reimbursed out of the Interstate TRS Fund. Just as Section 225(d)(3)(B) authorizes the Commission to reimburse intrastate calls from the Interstate TRS Fund where a state does not have a certified state TRS program, so may the Commission reimburse calls from the Interstate TRS Fund when the state is unable to determine if a call is intrastate.

WorldCom's IP-Relay Service Will Enhance Consumers' Competitive Choices

The Commission has recognized that TRS consumers would benefit greatly if TRS providers were to compete directly to carry their calls.¹⁴ With the exception of California, where multiple vendors provide relay services, competition only occurs for the state contract to provide TRS service, and not for each call. The Commission's policy is to promote competition for each TRS call, but the Commission has expressed concern that it may lack the statutory authority to require states to award contracts to multiple vendors.¹⁵ By approving interstate reimbursement for WorldCom's IP-Relay service, the Commission will bring the benefits of competition to deaf and hard of hearing persons, and allow the Commission to fulfill its obligations under the Telecommunications Act of 1996 to promote competition in all communications markets, without imposing new requirements on states.¹⁶ WorldCom's IP-Relay service will provide an immediate, competitive, alternative for any TRS consumer that owns an IP-capable device, such as a computer, web phone, or personal digital assistant.

The Commission Has Clear Authority To Approve Services Such As WorldCom's IP-Relay Service

The Americans With Disabilities Act (ADA) requires the Commission to "...ensure that (its TRS regulations) ... encourage ... the use of existing technology...."¹⁷ As we discussed in our meeting and in our Petition, WorldCom's IP-Relay service will bring the benefits of the Internet to deaf and hard of hearing persons making relay calls. The service will permit TRS consumers greater access to relay services by permitting any web-enabled PC, PDA or browser to take the place of a TTY. This will make relay service accessible to persons that are currently unable to access relay via a TTY. PCs may readily be equipped with assistive input and output devices and features that accommodate persons with poor vision, poor hand flexibility, or even lack of hand mobility. Relay will now be available for these consumers.

¹⁴Telecommunications Relay Services and Speech-to-Speech services for Individuals with Hearing and Speech Disabilities, Notice of Proposed Rulemaking, CC Docket 98-67, (rel. May 20, 1998), at ¶65.

¹⁵Id., at ¶ 66.

¹⁶See Joint Explanatory Statement of the Committee of Conference, H. Conf. Rep. No. 104-458, 104th Cong., 2d Sess. 1 (1996).

¹⁷Americans With Disabilities Act, (ADA) Public Law 101-336, 104 Stat. 327, Title IV, Section 401(d)(2). See also Section 225(d)(2) of the Telecommunications Act of 1996.

The ADA also requires the Commission "...to ensure that interstate and intrastate telecommunications relay services are available , ...in the most efficient manner...."¹⁸ IP Relay will permit rapid and continuous enhancements to TRS service. By centralizing new features and capabilities on the internet, every TRS consumer will have the latest, newest, features each time they start a new call through simple upgrades in browsing software.

Both ADA requirements clearly authorize the Commission to clarify that WorldCom's IP Relay service may be reimbursed from the Interstate TRS Fund. By quickly clarifying, the Commission will ensure that persons with disabilities share the capabilities made possible by the latest technologies; ensure the efficient deployment of TRS nationwide; and permit deaf and hard of hearing persons to enjoy improved communications capabilities at home and at work.

I hope this letter has provided the answers that will permit you to quickly consider our Petition for Clarification. Please feel free to contact me for additional information at 202-736-6513.

Sincerely,

Larry Fenster

cc: Staci Pies
Scott Marshall
Jerry Stanshine
Sean White
Pam Slipakoff

¹⁸ ADA, Section 401(b)(1).

ATTACHMENT 2

May 22, 2001

Karen Peltz-Strauss
Deputy Bureau Chief
Consumer Information Bureau
Federal Communications Commission
445 12 St., SW
Washington, DC 20554

Dear Ms. Peltz-Strauss:

It was a pleasure presenting the capabilities of WorldCom Inc.'s ("WorldCom") new internet protocol relay service (IP-Relay) at our May 8, 2001 meeting with you, Pam Gregory, Jerry Stanshine, Sean White, Dana Jackson, Jennifer Simpson, Les Selzer, Pam Slipakoff, and Susan McNaughty. In the meeting, staff requested further information and analysis to aid your consideration of WorldCom's petition requesting that the costs of this service to be reimbursed solely out of the Interstate Telecommunications Relay Service Fund.¹⁹

Specifically, staff requested further information on: 1) the impact a decision on WorldCom's request might have on the definition of basic service or telecommunications service on decisions under consideration in other proceedings; 2) the cost and demand characteristics of internet protocol (IP) relay and the impact these data might have on the regulatory or pricing treatment of IP-Relay; 3) whether IP-Relay will meet the Commission's mandatory minimum standards for relay service; and 4) the costs and benefits of interstate IP-Relay service.

IP-Relay's Eligibility For Reimbursement As An Interstate Telecommunications Relay Service (TRS) Will Not Affect Decisions Currently Under Consideration Regarding The Definitions of Basic or Telecommunications Service Outside The Context Of Relay

In our February 6, 2001 meeting with Commission staff we discussed three reasons why IP-Relay should be considered an interstate relay service: 1) it fit the definition of an enhanced service; 2) it fit the definition of an information service; and 3) it is impossible to identify a geographic location for the originating leg of the call. Enhanced services are defined in part as services "... which ... provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information."²⁰ IP-Relay currently stores a relay conversation and offers the user a printable log of their conversation, and is therefore functioning

¹⁹WorldCom, Inc., Petition for Clarification, ("Petition") Telecommunications Services for individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990, CC Docket No. 90-571, December 22, 2000.

²⁰ 47 C.F.R. § 64.702(a).

as an enhanced service. The capabilities of IP-Relay will make other enhanced features available in the future. For example, users might be able to call up a directory of numbers and select a number to call that would automatically be forwarded to the communications assistant (CA).

The Commission has already determined that all enhanced services are information services.²¹ This decision would not be affected by a decision on issues under consideration in the Computer III FNPRM.²² In that proceeding, the Commission noted that in its Non-Accounting Safeguards Proceeding it had already determined that all enhanced services were incorporated under the definition of information services, and only asked whether basic services should be incorporated under the definition of telecommunications services.²³ The Commission did not propose reconsidering either the definition of enhanced service, information service, or the incorporation of enhanced service into the definition of information service. Therefore concluding that IP-Relay is an enhanced service would not constrain the Commission with regard to whether basic services should be incorporated into the definition of telecommunications service. Conversely, whatever decision the Commission might make regarding the relation of basic services to telecommunications would not impact the decision to incorporate enhanced services into information services.

A second reason IP-Relay should be considered an interstate service is that the Commission has determined that relay services are not telecommunications.²⁴ This makes IP-Relay an information service, since non-telecommunications services that utilize telecommunications are information services,²⁵ which in turn makes IP-Relay an interstate service.²⁶

A third reason for the Commission to determine that WorldCom's IP-Relay service is eligible for reimbursement solely out of the Interstate TRS Fund is because the service's use of IP makes the originating caller's geographical location impossible to determine. Just as Section 225(d)(3)(B) authorizes the Commission to reimburse intrastate calls from the Interstate TRS Fund where a state does not have a certified state TRS program, so may the Commission

²¹ In the Matter of Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, First Report and Order and Further Notice of Proposed Rulemaking ("Non-Accounting Safeguards Order"), CC Docket No. 96-149, (rel. December 24, 1996), ¶ 55.

²² Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review -- Review of Computer III and ONA Safeguards and Requirements, Further Notice Of Proposed Rulemaking, CC Docket No. 95-20; CC Docket No. 98-10, 13 FCC Rcd 6040; 1998, (rel. January 30, 1998).

²³ *Id.*, at ¶ 41.

²⁴ Telecommunications Relay Services and Speech-to-Speech services for Individuals with Hearing and Speech Disabilities, Report and Order and Further Notice of Proposed Rulemaking, ("Improved TRS Services Order"), CC Docket 98-67, (rel. March 6, 2000), at ¶ 81.

²⁵ In the Matter of Federal-State Joint Board on Universal Service, Report to Congress, CC Docket No. 96-45, Released April 10, 1998, at ¶ 12.

²⁶ Non-Accounting Safeguards Order at ¶ 102.

reimburse calls from the Interstate TRS Fund when the state is unable to determine if a call is intrastate.

Any one of these three reasons should provide sufficient justification to reimburse IP-Relay solely from the Interstate TRS Fund. Taken together, there is more than sufficient justification.

The Cost Of Providing IP-Relay Is Approximately The Same As Traditional Relay

A comparison of traditional relay and IP-Relay shows that they have the same basic costs. In the WorldCom IP-Relay model, a user establishes a local connection to an internet service provider (ISP) using a computer or another IP-capable device. Once the call arrives at our relay center, it is handled by the same CAs and relay facilities that handle a traditional relay call. These CAs would be providing access to relay without regard to whether the caller used a TTY or a computer to access our relay platform.

The only basis for reimbursable cost difference with traditional relay therefore resides on the originating side of the call, between our internet gateway and our relay center. These costs would include the cost of the internet gateway, web servers, and firewalls, a negligible share of WorldCom's annualized relay costs. Another possible cost of IP-Relay would be foregone toll revenue, due to an IP-originated call's lack of a billing ANI. While this does constitute a cost to WorldCom, we will not be seeking reimbursement for these lost toll revenues from the Interstate TRS Fund.²⁷

The negligible additional costs of the internet gateway, servers, and firewalls should be compared to the reduction in costs associated with not having to pay originating access charges on the IP leg of an IP-relay call in order to determine whether IP-Relay costs more, less, or about the same as traditional relay. We estimate originating access charges to be approximately .2% of annualized relay costs.²⁸

The cost of providing IP-Relay therefore involves negligible cost savings and negligible additional costs compared to traditional relay. Therefore, the Commission should reimburse IP-Relay at the rate established for a traditional text interstate relay call.²⁹

²⁷ We do not expect persons without speech or hearing impairments to use IP-Relay to avoid toll calls. They may do so already by making pc-pc internet calls, without having to deal with the slower conversation necessitated by the intervention of a CA.

²⁸ Average originating access charges of \$.0023 were grossed up by a factor of 1.4 to account for session minutes, and then divided by the 2001 interstate relay reimbursement rate of 1.303 to determine the share of originating access charges in the cost of providing relay service. Sources: interstate Telecommunications Relay Services Fund Payment Formula and Fund Size Estimate, CC Docket No. 90-571, NECA, May 1, 2001, Exhibit 1A; Universal Service Monitoring Report, September 2000, FCC, CC Docket No. 98-202, Table 7.15.

²⁹ Even if IP-Relay were significantly less expensive than a traditional text relay call, the Commission should still reimburse at the traditional interstate text relay rate. Doing so would reward relay providers who provide IP-Relay, which in turn would promote a more rapid expansion of this valuable method of accessing relay. This would be akin

IP-Relay Calls Have Identical Usage Characteristics As Traditional Relay

The demand characteristics of IP-Relay are identical to traditional relay. An IP-Relay call lasts an average of 5 minutes, and takes an average of 2 minutes to set up. These are the same demand characteristics as traditional relay. WorldCom envisions substantial competition for interstate relay minutes once the Commission approves interstate reimbursement for this service. As discussed below, this should have two effects on demand: 1) there will be a substitution of WorldCom's IP-Relay service for traditional relay; and 2) there will be a modest growth in total relay minutes as new users begin using relay for the first time.

WorldCom's IP-Relay Service Will Comply With Most Mandatory Minimum Standards

Because most aspects of WorldCom's IP-Relay service are provided by the same staff and facilities as traditional relay, nearly all aspects of the service will be identical to traditional relay. Thus, WorldCom's IP-Relay service will comply with the Commission's mandatory minimum standards governing communications assistants (CAs), confidentiality and conversation content, types of calls, in-call replacement of CAs, CA gender preferences, ASCII and baudot, equal access to interexchange carriers, TRS facilities, technology, voice mail and interactive menus, consumer complaint logs, contact persons, public access to information, rates, jurisdictional separation of costs, and complaints. There are a few requirements for which IP-Relay requires either additional time or minor accommodation.

Speed of Answer

Once WorldCom's IP-Relay service has an historic traffic projection we can fully comply with the Commission's average speed of answer (ASA) requirement.³⁰ In its Improved Services Order the Commission determined that the "clock" measuring ASA begins the moment "...when the relay center's equipment accepts the call from the LEC and the public switched network actually delivers the call to the TRS center."³¹ The path of an IP-Relay call is as follows: a caller initiates an internet session by dialing up their internet provider, which then transports the call over the internet via WorldCom's internet gateway, which then hands the call off to a terminating LEC, which then hands the call off to WorldCom's relay center. The ASA requirement would begin at the same time as traditional relay and is measured from the time the call reaches the relay center network not the website. WorldCom's IP-Relay service would technically comply with the Commission's existing ASA requirement.

to the Commission's decision to reimburse new entrants who provide universal services according to the costs associated with incumbent local exchange companies.

³⁰ 47 C.F.R. §64.604(b)(2).

³¹ Improved Services Order at &62.

However, an IP-Relay call is actually initiated when the caller reaches WorldCom's IP-Relay website. IP-Relay service has been offered up till now on a trial basis and we do not have minute-to-minute demand information that would permit us to make a rational investment in server and circuit capacity to fully comply with the spirit of the ASA requirement. As our IP-Relay service ramps up to meet increasing demand, WorldCom will be adding more circuits to accommodate the growth in demand. WorldCom commits to anticipate demand and add circuits flowing out of its internet gateway to meet the Commission's ASA requirements measured from its internet gateway as soon as IP-Relay demand growth stabilizes, but no later than one year after it receives approval to be reimbursed from the Interstate TRS Fund.

Emergency Calls

Another minimum mandatory requirement possibly implicated by IP-Relay is the requirement to use a system that "...automatically and immediately transfers the caller to the nearest Public Service Answering Point (PSAP)."³² Neither IP-Relay nor cellular calls necessarily transmit accurate originating location information. Consequently, relay providers must query the caller about his or her calling location. WorldCom has developed a national data base that permits a CA to immediately transfer an emergency call to the nearest PSAP, or orally transmit the caller's number once the CA learns the caller's number. WorldCom believes this satisfies the Commission's emergency requirements, given the technical state of cellular and IP technology.

Voice Carry Over (VCO), Hearing Carry Over (HCO), Speech-to-Speech (STS), and Video Relay Service (VRS)

VCO, HCO, STS, and VRS are all possible if one leg of the call is carried over the internet. WorldCom's IP-Relay service could support all these types of calls. However, internet voice, used by VCO, HCO, and STS do not have the same quality as a traditional VCO, HCO, or STS call. The IP version of these services depends on the quality of voice over the internet. Since voice over IP is still new to the internet, and outside the control of relay providers, it requires some special considerations in the context of relay. The device used to connect to IP-Relay would have to be sound-equipped. The link to the internet would need to be fast and clear. Even with these items in place, the internet can still loose or delay packets and thereby reduce the quality of the voice portion of a relay call. As quality of service (QoS) standards are implemented throughout the internet, improvements will occur in Voice over IP. WorldCom's IP-Relay will be ready to provide these capabilities as voice over IP improves.

VRS is a voluntary service, and WorldCom has provided this service to its relay customers. Video over IP is an exciting advancement in deaf and hard of hearing communication and promises to be the best and cheapest way to provide VRS. Video over the internet suffers from the same things that impact Voice over IP until changes are made in QoS standards throughout the internet. In the meantime, IP-Relay is working to incorporate VRS according to existing QoS standards, the quality of the user's video equipment, and the quality of the user's video card.

³² 47 C.F.R. §64.604(a)(4).

WorldCom's IP-Relay Service Will Enhance Consumers' Competitive Choices

The Commission has recognized that TRS consumers would benefit greatly if TRS providers were to compete directly to carry their calls.³³ With the exception of California, where multiple vendors provide relay services, competition only occurs for the state contract to provide TRS service, and not for each call. The Commission's policy is to promote competition for each TRS call, but the Commission has expressed concern that it may lack the statutory authority to require states to award contracts to multiple vendors.³⁴ By approving interstate reimbursement for WorldCom's IP-Relay service, the Commission will bring the benefits of competition to deaf and hard of hearing persons, and allow the Commission to fulfill its obligations under the Telecommunications Act of 1996 to promote competition in all communications markets, without imposing new requirements on states.³⁵ WorldCom's IP-Relay service will provide an immediate, competitive, alternative for any TRS consumer that owns an IP-capable device, such as a computer or personal digital assistant.

Because relay service is price-regulated, competition will primarily take the form of service enhancements. IP-Relay is already a superior form of relay in many cases. A user may hold a relay conversation, surf the web at the same, and discuss web content with a caller. A user may engage in multiple relay conversations or utilize the service in a call-waiting fashion. A user receives a log of his or her conversation, which may facilitate their ability to participate on work-related conference calls. Users will be able to make relay calls from work without them or their employers having to invest in a TTY. In addition, because IP-Relay utilizes personal computer software capabilities, and because the computer industry has already developed many assistive devices, such as large fonts, screen keyboards, word completion programs, augmented communication programs, mouse emulators, mouth sticks, and head pointers, to name a few, IP-Relay will make relay available to persons who are currently unable to read TTY output, or type on a TTY keyboard.

In the future, relay providers will be driven to work with software developers and information service providers to enhance the capability of IP-Relay, and bundle additional services in order to win the users' loyalty. Some relay providers may choose to specialize in certain types of bundled services and capabilities, and customers will be able to choose one relay who has a comparative advantage for certain services, and then on subsequent calls choose a different provider who has a comparative advantage for other services and capabilities.

³³Telecommunications Relay Services and Speech-to-Speech services for Individuals with Hearing and Speech Disabilities, Notice of Proposed Rulemaking, CC Docket 98-67, (rel. May 20, 1998), at ¶65.

³⁴Id., at ¶ 66.

³⁵See Joint Explanatory Statement of the Committee of Conference, H. Conf. Rep. No. 104-458, 104th Cong., 2d Sess. 1 (1996).

The Benefits of IP-Relay Significantly Outweigh Its Costs

The conclusion is easily reached that the benefits associated with approving interstate reimbursement for IP-Relay services far outweigh the costs. One possible cost of IP-Relay would result from the shift in demand from relay providers seeking reimbursement from state TRS funds for intrastate calls and from the Interstate TRS Fund for interstate calls, to IP-Relay providers seeking reimbursement solely from the Interstate TRS Fund. This distribution shift would have no net cost impact on consumers. The increase in interstate reimbursement by IP-Relay providers for calls that would otherwise have been reimbursed from the Interstate TRS Fund, would function simply as a shift in competitive choice, and have no impact on the size of the Interstate TRS Fund. The increase in interstate reimbursement by IP-Relay providers for calls that would otherwise have been reimbursed from intrastate TRS funds would also have no net impact on consumers, since this shift would be offset over time by an equal reduction in the size of the various intrastate TRS funds.

Another possible cost resulting from IP-Relay would be a general increase in demand for relay due to the vigorous competition, new services and new communications capabilities IP-Relay will make available to persons with hearing, speech, and visual impairments. This general increase in relay demand will add new costs to relay, and not be offset by a reduction in state relay requirements. Between 1997 and 2000, both costs and demand for interstate relay increased by 9.3 percent per year.³⁶ Assuming IP-Relay's popularity were to increase the rate of growth in demand, and therefore in cost, by 20 percent above recent growth rates, it would cause an annual increase in cost of approximately 1.9 percent.³⁷ On a base of \$51 million in interstate relay payment obligations in 2001, a 1.9 percent increase would cost approximately \$1 million. In addition, IP-Relay will make relay available to 2 million persons with hand, hearing, and vision impairments severe enough to prevent their use of TTY-devices, approximately 10 percent of the relay using population. This increase in demand would result in a 10 percent increase in relay costs, an additional \$5.1 million per year. Total estimated increased costs due to approval of IP-Relay is therefore approximately \$6.1 million.

It is admittedly difficult to estimate the benefits of approving IP-Relay. The discussion above identified many potential benefits. Broadly speaking, we can expect IP-Relay will make telecommunication available to severely disabled persons who were unable to use TTY devices, as well as hearing and sight impaired persons who have not learned how to use TTY devices. Persons with vision, hearing, or hand impairments account for approximately 10 percent of the adult U.S. population, approximately 20 million persons.³⁸ Severely disabled persons account for approximately 47 percent of all disabled, meaning 9 million U.S. adults have severe enough vision, hearing or hand impairments that they might not have access to a TTY device.³⁹

³⁶ Interstate Telecommunications Relay Services Fund Payment Formula and Fund Size Estimate, National Exchange Carrier Association, Inc., CC Docket 90-571, filed May 1, 2001, Exhibit 2.

³⁷ $1.2 \times 9.3 = 11.16$.

³⁸ Falling Through The Net: Towards Digital Inclusion, U.S. Department of Commerce, Economics and Statistics Administration, National Telecommunications and Information Administration, Table III-1.

Approximately 20 percent of persons with disabilities have internet access, so IP-Relay would make communication available to 20 percent of the 9 million U.S. adults with severe enough vision, hearing or hand impairments that they might not have access to a TTY device – nearly 2 million persons. This would put the cost of IP-Relay at \$3 per additional person served per year.⁴⁰

The population in general places a value on long distance communication far in excess of \$3 per year. The average annual expenditure for residential long distance bill was approximately \$270 in 1998.⁴¹ Assuming persons with hearing and speech disabilities currently unable to use TTY-devices value communications the same as the general population, they would be willing to pay \$270 a year, but it would only cost an additional \$3 to provide IP-Relay service to this population. This analysis shows that IP-Relay would be socially justified even if the social cost of providing IP-Relay is understated by a factor of 90. When one factors in the additional benefits to non-severely disabled persons also discussed in this letter, it is reasonable to conclude that the social benefits of funding IP-Relay through the Interstate TRS Fund far outweigh the costs.

I hope this letter has provided the answers that will permit you to quickly consider our Petition for Clarification. Please feel free to contact me for additional information at 202-736-6513.

Sincerely,

Larry Fenster

cc:	Karen Peltz-Strauss	Pam Gregory	Jerry Stanshine
	Sean White	Pam Slipakoff	Dana Jackson
	Jennifer Simpson	Les Selzer	Susan McNaughty

³⁹ Chartbook on Work and Disability in the United States, InfoUse, Susan Stoddard et. al., Berkeley, Ca., 1998, Figure 1.

⁴⁰ \$6.1 million in incremental IP-Relay Cost) 2 million severely hand, vision, and hearing impaired persons with internet access.

⁴¹ Reference Book of Rates, Prices, Indices, and Expenditures for Telephone Service, Phil Chielik, FCC, June 1999, Table 3.6.

